What is claimed is:

1. A memory device storing a data structure for tracking network behavior, comprising:

a connection table that maps each node of a network to a record object that stores information about traffic to or from the node and between that node and others nodes in the network.

2. The device of claim 1 wherein the connection table includes a plurality of records that are indexed by source address.

3. The device of claim 1 wherein the connection table includes a plurality of records that are indexed by destination address.

4. The device of claim 1 wherein the connection table includes a plurality of records that are indexed by time.

5. The device of claim 1 wherein the connection table includes a plurality of records that are indexed by source address, destination address and time.

6. The device of claim 1 wherein the connection table is a plurality of connection sub-tables each sub-table having data pertaining to network traffic over different time scales.

7. The device of claim 1 wherein the connection sub-tables include a time-slice connection table that operates on a small unit of time and at least one other sub-table that operates on a larger unit of time than the time slice sub-table.

8. The device of claim 7 wherein the at one sub-table holds records received from all collectors over the time scale of the table.

9. The device of claim 5 wherein the addresses indexing the connection table are IP addresses.

10. The device of claim 1 wherein the addresses indexing the connection table are include a physical later address to IP address map that is used to determine Host ID.

11. The device of claim 1 wherein the host record of a first host also maps to a second host which communicates with the first host to a "host pair record" that has information about all the traffic from between the first and second hosts.

12. The device of claim 1 wherein connection data structure enables a consuming device to obtain summary information about one host and about the traffic between any pair of hosts, in either direction.

13. The device of claim 1 wherein a record stores a measure of the number of bytes, packets, and connections that occurred between hosts during a given time-period.

14. The device of claim 1 wherein data in the record is organized by well known transport protocols and well-known application-level protocols.

15. The device of claim 1 wherein host records have no specific memory limit.

16. The device of claim 1 wherein for application-level protocols and for every pair of hosts, the connection table stores statistics for traffic between the hosts.

17. The device of claim 16 wherein the connection table stores protocol-specific records as (protocol, count) key-value pairs.